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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,612	07/31/2002	Tom-Chin Chang	9154-US-PA	6857
31561	7590	06/28/2005	EXAMINER	
JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE 7 FLOOR-1, NO. 100 ROOSEVELT ROAD, SECTION 2 TAIPEI, 100 TAIWAN			SETH, MANAV	
			ART UNIT	PAPER NUMBER
			2625	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/064,612

Applicant(s)

CHANG, TOM-CHIN

Examiner

Manav Seth

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities:

(a) On page 2 of 12, 1<sup>st</sup> line of paragraph [0007] of the specification recites "When the lamp 102 is used as the light source of **the color scanner 100**, the ....". The color scanner is numbered as **100** in 1<sup>st</sup> line of paragraph [0007] of the specification, which is not consistent with figure 1 and 1<sup>st</sup> line of page 2 of 12 of the specification where the color scanner is numbered as **10**.

(b) On page 2 of 12, 3<sup>rd</sup> line of paragraph [0010] of the specification recites "**computer 116**". The computer is numbered as **116** in 3<sup>rd</sup> line of paragraph [0010] of the specification, which is not consistent with figure 1 where the computer is numbered as **118**.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishizuka, U.S. Patent No. 5,262,873.

**Claim 1** recites “An image correction method able to avoid error images, comprising: obtaining a first correction digital signal by scanning a first correction document during black correction, and extracting only a plurality of last bits of the first correction digital signal; and obtaining a second correction digital signal by scanning a second correction document during white correction, and extracting only a plurality of first bits of the second correction digital signal”. Ishizuka, as a prior art, starts with teachings of a correcting device in which a white correction digital signal is obtained by reflecting a light from light source by a white reference (e.g. document) provided in the scanner (col. 3, lines 65-68 through col. 4, lines 1-3). Ishizuka further discloses “Since the scanner is generally characterized by the white signals between adjacent pixels or within a range of a small number of pixels being similar to each other, the difference between the adjacent pixels is, for example, between 1 and several tens of percentage points of the full scale. Therefore, the value representing the difference is small with respect to the number of bits of the output of the A/D converter 101, and the number of bits required for the memory 103 can thus be reduced, saving the capacity of the memory 103” (col. 4, lines 43-52). Ishizuka further discloses “**The output of the A/D converter 101** other than one to a few bits of the minimum resolution (LSB) side of the output of the A/D converter 101 is input to the subtracter 105, and the result of the subtraction is stored in the memory 103” (col. 5, lines 22-26). From the above disclosure by Ishizuka it is clear that after white digital correction signal is obtained, the number of bits representing the white digital correction signal are reduced with respect to the small memory size and examiner asserts that based on the teachings of Ishizuka, it would have been obvious for one of ordinary skill in the art at the time of invention was made to consider it as a matter of selecting either first few bits or last few bits from the digital correction signal because the value representing

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the difference is small with respect to the number of bits of the output of the A/D converter (col. 4, lines 43-52).

Ishizuka further teaches a correcting device which obtains a dark (black) correction digital signal for each of the bits of the scanner by reading a black reference (document) or by turning off a light source and then by performing reading by the scanner under the darkest condition (col. 6, lines 56-61). Ishizuka further teaches of using smaller number of bits of the black (dark) correction digital signal in order to save the memory capacity (col. 7, lines 55-58). Again, examiner asserts that based on the teachings of Ishizuka, it would have been obvious for one of ordinary skill in the art at the time of invention was made to consider it as a matter of selecting either first few bits or last few bits from the digital correction signal because the value representing the difference is small with respect to the number of bits of the output of the A/D converter.

Ishizuka further discloses that in order to reduce memory size, a common memory is used by both a white signal correcting device and a dark (black) signal correcting device, and these two correcting devices are formed as one unit and figure 9 shows that one unit (col. 8, lines 35-44). Ishizuka further discloses the method performed by this single unit where, (a) **first**, a black correction digital signal is obtained (col. 8, lines 45-47) and the black correction digital signal (a plurality of bits) is stored in the four leftmost bits of the flip-flop 303 (col. 8, lines 55-57), and (b) **second**, a white correction digital signal is obtained (col. 8, lines 58-60) and the white correction digital signal (a plurality of bits) is stored in the four rightmost bits of the flip-flop 303 (col. 8, lines 63-66). From the above disclosure by Ishizuka it is clear that after white digital correction and black digital correction signals are obtained, the number of bits representing these signals are reduced with respect to small memory size and examiner asserts that based on the teachings of Ishizuka, it would have been obvious for one of ordinary skill in the art at the time of invention was made to

consider it as a matter of selecting either first few bits or last few bits for any of the digital correction signals and all other supporting arguments have been discussed before.

**Claim 2** recites “the method according to claim 1, the extracted last bits of the first correction digital signal are stored in a memory”. As discussed in the rejection of claim 1, the extracted bits of the both dark and white correction digital signals are stored in memory. Therefore, Claim 2 has been similarly analyzed and rejected as per claim 1.

**Claim 3** recites “the method according to claim 2, wherein the memory includes a random access memory”. As from the definition, RAM or random access memory is a memory that can be written and read. Memory, 303, has been discussed in the rejection of claim 1. Therefore, claim 3 has been similarly analyzed and rejected as per claims 2 and 1.

**Claim 4** has been similarly analyzed and rejected as per claims 1-3..

**Claim 5** has been similarly analyzed and rejected as per claims 4 and 1-3.

**Claim 6** has been similarly analyzed and rejected as per claim 1.

**Claim 7** has been similarly analyzed and rejected as per claim 1.

**Claim 8** has been similarly analyzed and rejected as per claim 1.

**Claim 9** recites “the method according to claim 8, wherein the image extraction device includes a charge-coupled device”. Ishizuka discloses a image sensor, 53, as an image extraction device in figure 9 and CCDs (charge-coupled devices) are well known to be used as image sensing or extracting devices in devices such as scanners, cameras, copiers, etc.

**Claim 10** has been similarly analyzed and rejected as per claims 8 and 1.

**Claim 11** has been similarly analyzed and rejected as per claims 10, 9, 8 and 1.

### ***Conclusion***


4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kamei et al., U.S. Patent No. 5,691,827, discloses a image processing apparatus for converting a color image into a pattern image with a line having a width which is equal to or less than a predetermined width not being converted.
- Sakai et al., U.S. Patent No. 5,784,180, discloses a image memory apparatus.
- Smitt, U.S. Patent No. 5,502,578, discloses a optical scanner having a variable resolution.
- Takeuchi et al., U.S. Patent No. 6,134,025, discloses a dot image data output apparatus.
- Schayes et al., U.S. Patent No. 4,188,643, discloses a method and arrangement for correcting errors in facsimile transmission.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manav Seth whose telephone number is (571) 272-7456. The examiner can normally be reached on Monday to Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**BHAVESH M. MEHTA**  
SUPERVISORY PATENT EXAMINER  
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Manav Seth  
Art Unit 2625  
June 24, 2005